

ABSTRACT

An inspection apparatus and a semiconductor device manufacturing method using the same. The inspection apparatus is used for defect inspection, line width measurement, surface potential measurement or the like of a sample such as a wafer. In the inspection apparatus, a plurality of charged particles is delivered from a primary optical system to the sample, and secondary charged particles emitted from the sample are separated from the primary optical system and introduced through a secondary optical system to a detector. Irradiation of the charged particles is conducted while moving the sample.

Irradiation spots of the charged particles are arranged by N rows along a moving direction of the sample and by M columns along a direction perpendicular thereto. Every row of the irradiation spots of the charged particles is shifted successively by a predetermined amount in a direction perpendicular to the moving direction of the sample.